[54] HIGH PERFORMANCE SINGLE MODE WAVEGUIDE

[57] ABSTRACT

Disclosed is a single mode optical waveguide fiber having a segmented core design. In particular, the core comprises three segments, each having characteristic dimensions and refractive index profile. By proper choice of index profile in each segment, a waveguide fiber is made which has a mode field diameter of about 9.5, low, positive total dispersion over the operating window 1530 nm to 1565 nm as well as effective area greater than $60~\mu m^2$.